Listing of claims:

1-57 (Cancelled)

58. (New) A method of assessing an amyloid-related disease comprising:

administering to a subject an imaging agent that binds to a soluble A-beta and is labeled for detection; and

non-invasively detecting the imaging agent that is present as a complex of the imaging agent bound to soluble A-beta.

59. (New) A method as in claim 58, wherein the soluble A-beta is selected from monomeric A-beta peptides, dimeric A-beta peptides, trimeric A-beta peptides, oligomers of up to 24 A-beta peptides, and combinations thereof.

60. (New) A method as in claim 59, wherein the soluble A-beta peptides of A-beta is selected from A-beta 1-38, A-beta 1-39, A-beta 1-40, A-beta 1-41, A-beta 1-42, A-beta 1-43, and combinations thereof.

61. (New) A method as in claim 58, wherein the soluble A-beta does not exhibit green birefringence when stained by Congo red.

62. (New) A method as in claim 58, wherein the imaging agent that binds to soluble A-beta comprises an antibody or an antibody fragement.

63. (New) A method as in claim 58, wherein the imaging agent is labeled with a radioisotope, a paramagnetic particle, an optical particle, and combinations thereof.

64. (New) A method as in claim 63, wherein the imaging agent is labeled with a radioisotope selected from 3H, 11C, 14C, 18F, 32P, 35S, 123I, 125I, 131I 51Cr, 36Cl, 57Co, 59Fe, 75Se, 152Eu, and combinations thereof.

65. (New) A method as in claim 58, wherein the imaging agent is labeled with a paramagnetic particle selected from 157Gd, 55Mn, 162 Dy, 52Cr, 56Fe, and combinations thereof.

66. (New) A method as in claim 58, wherein the imaging agent comprises an optical label selected from a fluorophore, a chemiluminescent entity, and combinations thereof.

67. (New) A method as in claim 58, wherein the step of non-invasive detection comprises generating and analyzing an image using a technique selected from positron emission tomography, magnetic resonance imaging, optical imaging, single photon emission computed tomography, ultrasound, and x-ray computed tomography.

68. (New) A method as in claim 58, wherein the step of non-invasive detection further comprises measuring the amount of imaging agent bound to soluble A-beta.

69. (New) A method of assessing an amyloid-related disease comprising:

administering to a subject having or suspected of having an amyloid-related disease, an imaging agent that specifically binds to a soluble beta-amyloid and is labeled to emit a detectable signal; and

non-invasively detecting the imaging agent bound to A-beta.

70. (New) A method as in claim 69, wherein the soluble A-beta is selected from monomeric A-beta peptides, dimeric A-beta peptides, trimeric A-beta peptides, oligomers of up to 24 A-beta peptides, and combinations thereof.

71. (New) A method as in claim 69, wherein the soluble A-beta is selected from A-beta 1-38, A-beta 1-39, A-beta 1-40, A-beta 1-41, A-beta 1-42, A-beta 1-43, and combinations thereof.

72. (New) A method as in claim 69, wherein the imaging agent that binds to soluble A-beta is selected from antibodies and antibody fragments.

73. (New) A method as in claim 69, wherein the imaging agent comprises a label selected from a radioisotope, a paramagnetic particle, and an optical particle.

74. (New) A method as in claim 69, wherein the imaging agent comprises a label selected from 3H, 11C, 14C, 18F, 32P, 35S, 123I, 125I, 131I 51Cr, 36Cl, 57Co, 59Fe, 75Se, 152Eu, and combinations thereof.

75. (New) A method as in claim 69, wherein the imaging agent comprises a label selected from 157Gd, 55Mn, 162 Dy, 52Cr, 56Fe, and combinations thereof.

76. (New) A method as in claim 69, wherein the imaging agent comprises an optical label selected from a fluorophore and a chemiluminescent entity.

77. (New) A method as in claim 69, wherein the amyloid-related disease is Alzheimer's disease.

78. (New) A method as in claim 69, wherein the step of detecting comprises noninvasively measuring the level of the imaging agent within the subject.

79. (New) A method as in claim 69, wherein the step of non-invasive detection comprises generating and analyzing an image using a technique selected from positron emission tomography, magnetic resonance imaging, optical imaging, single photon emission computed tomography, ultrasound, and x-ray computed tomography.

80. (New) A method as in claim 69, wherein the step of non-invasive detection further comprises measuring the amount of imaging agent bound to soluble A-beta.

81. (New) The method of claims 57-80, wherein the imaging agent comprises: